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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

JOHNSON, EDWARD M

ART UNIT PAPER NUMBER

1754

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/830,907

Applicant(s)

BAYENSE ET AL.

Examiner

Edward M. Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-16, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-16, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35

U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-8, 10-16, and 20-21 are rejected under 35

U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

No support was found in the original disclosure for the newly added recitation, "at least 10% of the total pore volume in pores of diameter over 1000 nm". However, Applicant is invited to specifically point out where such support may be found.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-8, 10-16, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulaskey et al. US 3,673,079 in view of Neel et al. US 4,554,268.

Regarding claim 1, Mulaskey '079 discloses alumina extrudate rods (see column 4, lines 65-75), having a star shape (see column 5, lines 26-32), a side crushing strength of at least 30 pounds (see column 5, line 46 and column 14, line 68), pores above 1000 Angstroms (see column 5, lines 57-59) and a pore volume of 0.25-0.4 cc/g (see column 5, lines 53-54), which would obviously, to one of ordinary skill, at least suggest 10% of pore volume in pores of diameter over 1000 nm.

Clough '081 fails to disclose a bulk crushing strength of at least 1 MPa.

Neel '268 discloses a bulk crushing strength of 1-4 MPa.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the 1-4 MPa bulk crushing strength of Neel in the alumina extrudate catalyst support of Mulaskey because Neel discloses his bulk crushing strength for use in an alumina catalyst support (abstract) which

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crushing strength is advantageous when used in a bed that has a substantial height or when a second layer of catalyst particles is placed upon the catalyst bed (see column 2, lines 14-19).

Regarding the newly added recitation, Mulaskey '079 discloses pores above 1000 Angstroms (see column 5, lines 57-59) and a pore volume of 0.25-0.4 cc/g (see column 5, lines 53-54), and Neel discloses a pore volume of at least 0.5 ml/g (see column 2, lines 3-6), a surface area above 300 m<sup>2</sup>/g, either or both of which would obviously, to one of ordinary skill, at least suggest 10% of pore volume in pores of diameter over 1000 nm.

Regarding claim 2, Mulaskey '079 discloses a length of about 0.2 inches (see column 11, line 43).

Regarding claims 3 and 10, Mulaskey '079 discloses a length to diameter ratio of 1-3 (see column 14, lines 63-64).

Regarding claims 4-5, 11, and 20-21 Neel '268 discloses a pore volume of at least 0.5 ml/g (see column 2, lines 3-6), a surface area above 300 m<sup>2</sup>/g, and less than 6% attrition resistance (see column 5, lines 46-49).

Regarding claims 7 and 12-16, Mulaskey '079 discloses catalysts (see abstract).

Regarding claim 8, Mulaskey '079 metal oxide catalyzers (see paragraph bridging columns 5-6).

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***Response to Arguments***

4. Applicant's arguments filed 4/1/04 have been fully considered but they are not persuasive.

It is argued that based upon the claimed subject matter as a whole... the claimed invention. This is not persuasive because Mulaskey '079 discloses pores above 1000 Angstroms (see column 5, lines 57-59) and a pore volume of 0.25-0.4 cc/g (see column 5, lines 53-54), and Neel discloses a pore volume of at least 0.5 ml/g (see column 2, lines 3-6), a surface area above 300 m<sup>2</sup>/g, either or both of which would obviously, to one of ordinary skill, at least suggest 10% of pore volume in pores of diameter over 1000 nm.

It is argued that Neel et al. fails to cure the deficiencies found in the primary reference. This is not persuasive for the reasons above and also because one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M.

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Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edward M. Johnson  
Primary Examiner  
Art Unit 1754

EMJ